

In response to the Office Action of April 9, 2004, please amend the application as follows:

**IN THE CLAIMS**

Please amend the claims as follows:

1. (Original) A catalyst for removing dioxin, comprising 1-10 wt% of vanadium, 0.1-5 wt% of nickel, 0.1-5 wt% of molybdenum and 1-15 wt% of tungsten, on a mixture support consisting essentially of 10-50 wt% of alumina and 50-90 wt% of titania.
2. (Currently Amended) A method for preparing a the dioxin removal catalyst according to claim 1, which comprises comprising the following steps of:
  - a) pretreating a spent catalyst discharged from a hydro-desulfurization process of an oil refinery, which comprises 5-30 wt% of vanadium, 1-10 wt% of nickel, 1-10 wt% of molybdenum, 0.1-5 wt% of iron, 1-10 wt% of sulfur, 0.1-5 wt% of silicon and 0.1-5 wt% of a phosphor phosphorus component on an alumina support, by thermally treating said spent catalyst[,] followed by washing with water;
  - b) providing a titania support impregnated with 1 to 20 wt% of tungsten;
  - c) homogeneously mixing the pretreated spent catalyst with the tungsten-impregnated titania under the addition of water and acid;
  - d) dehydrating the mixture to remove excess moisture and active metal components therein present in excess of the compositional range required for said dioxin removal catalyst as well as excess moisture;
  - e) drying the dehydrated mixture, followed by grinding the dried mixture; and

f) forming a catalyst body by extruding the grinded ground mixture or coating the grinded ground mixture to a structure, followed by drying and then calcining the dried structure to form a catalyst body.

3. (Currently Amended) The method as defined in claim 2, wherein the ~~thermally treating~~ thermal treatment of the step a) step is carried out at 300-400°C for 3-5 hours.

4. (Currently Amended) The method as defined in claim 2, wherein the tungsten impregnated titania has a specific surface area of 60-100 m<sup>2</sup>/g and pore sizes of 150-200 Å, and has an anatase crystalline structure.

5. (Original) The method as defined in claim 2, wherein the alumina support in the spent catalyst is a gamma alumina support, and has a specific surface area of 40-100 m<sup>2</sup>/g and pore sizes of 150-300 Å.

6. (Currently Amended) The method as defined in claim 2, wherein the acid is oxalic acid or citric acid and is added [at] in an amount of 3 to 7 wt% based on the spent catalyst and the tungsten impregnated titania in the c) step.

7. (Currently Amended) The method as defined in claim 2, the c) step is carried out in a ball mill until particles having a size of 2-3 $\mu$ m [particles] amount to 4-60 volume % based on the total volume of particles in the mixture.

8. (Original) The method as defined in claim 2, wherein the spent catalyst and the tungsten-impregnated titania are mixed at weight ratio of 10:90-50:50 in the c) step.

9. (Currently Amended) The method as defined in claim 2, wherein the d) step is carried out [by use of] using a filter press under a pressure of 10-15 kg/cm<sup>2</sup>.

10. (Currently Amended) The method as defined in claim 2, wherein the e) step is conducted [by use of] using a continuous dryer-miller.

11. (Currently Amended) The method as defined in claim 2, wherein the drying of the step e) step is carried out at 80-120°C for 0.5-2 hours.

12. (Currently Amended) The method as defined in claim 2, wherein the drying of the f) step is carried out [by use of] using a hot blast dryer, a microwave dryer or a thermohydrostat at 60-120°C for 3-48 hours.

13. (Currently Amended) The method as defined in claim 2, wherein the calcining of the step f) step is carried out at 450-550°C for 3-5 hours.

14. (Currently Amended) The method as defined in claim 2, wherein the extruding comprises dry-mixing the grinded ground mixture with organic binders, inorganic binders and glass fiber; aging the dry mixture, together with water, plasticizers, lubricants and dispersants, at 5°C or lower for 1-2 days; kneading the aged mixture in a kneader 2-5 times; storing said kneaded mixture at 5°C or lower for 1-5 days; and molding the stored mixture into a honeycomb form through a vacuum extruder.

15. (Currently Amended) The method as defined in claim 2, wherein the coating comprises applying, pouring or pressure-adhering a coating material including the grinded ground mixture, inorganic binders and water to a metal plate of honeycomb form or a cordierite-typed ceramic honeycomb.